

**REMARKS:**

Claims 1, 7, 8, 11, 17, 18, and 51-56 are pending in this application, of which claims 1 and 11 have been amended herein.

In the subject application, a set of three-dimensional data Ca of a machine including a construction member or intermediate member has a reference coordinate system, the origin of which is located at any position of a machine (page 52, line 25 to page 53, line 4 of the specification, and FIG. 18).

In the subject application, a second set of data has a reference coordinate system, the origin of which is located on a construction member (page 54, line 24 to page 55, line 14 of the specification, and FIG. 3) or an intermediate member (page 61, lines 1-14 of the specification, and FIG. 12) disposed on a transfer unit.

U.S. Patent No. 4,656,048 (**Kudoh**), alone or in combination with the other references relied upon by the Examiner, fails to teach that a coordinate system of a substrate measured is converted to any other body such as a work bench.

A. Claims 1 and 11 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 5,746,844 (**Sterett**), U.S. Patent No. 4,656,048 (**Kudoh**), and U.S. Patent No. 6,309,711 (**Tseng**).

Applicants respectfully traverse this rejection, for the following reasons.

If the Examiner fails to establish a *prima facie* case, the rejection is improper and will be overturned. *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988). There are substantial, important differences between the art relied upon by the Examiner and the features set forth in the claims at issue.

For example, **Sterett**, **Kudoh**, and **Tseng**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 1, as amended, in combination with the other features set forth in claim 1, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member disposed on a transfer unit and having the origin in the construction member, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Sterett, Kudoh,** and **Tseng** in order to arrive at the features set forth in claim 1, as amended.

**Sterett, Kudoh,** and **Tseng**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 11, as amended, in combination with the other features set forth in claim 11, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member or on the intermediate member disposed on a transfer unit and having the origin in the member provided, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Sterett, Kudoh,** and **Tseng** in order to arrive at the features set forth in claim 11, as amended.

In view of the above, the Examiner has not yet established a *prima facie* case of obviousness. But it is the burden of the Examiner to do so. The U.S. Patent and Trademark Office has the burden of proof to show that an applicant is not entitled to a patent if the claimed subject matter is anticipated by, or is obvious from, the art of record. A patent applicant is entitled to a patent

"unless" the U.S. Patent and Trademark Office establishes otherwise. See, e.g., *In re Dembiczak*, 175 F.3d 994, 1001 (Fed. Cir. 1999); *In re Epstein*, 32 F.3d 1559, 1564 (Fed. Cir. 1994); *In re Rijckeart*, 9 F.3d 1551, 1552 (Fed. Cir. 1992); *In re Fine*, 837 F.2d 1071, 1074 (Fed. Cir. 1988).

In view of the foregoing amendments and remarks, it is respectfully believed that essential elements of a *prima facie* case of obviousness are missing. The art does not describe, teach, or suggest the combinations of features as set forth in claims 1 and 11, as amended. Applicants respectfully submit that the Examiner has not established a *prima facie* case regarding claims 1 and 11, as amended.

Accordingly, in view of the above, Applicants respectfully submit that this rejection of claims 1 and 11 should be withdrawn.

B. Claims 1 and 11 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,520,402 (Orme-Marmerelis) or JP 10-226,803 (JP '803) in combination with U.S. Patent No. 4,656,048 (Kudoh) and U.S. Patent No. 6,309,711 (Tseng).

Applicants respectfully traverse this rejection, for the following reasons.

There are substantial, important differences between the art relied upon by the Examiner and the features set forth in the claims at issue.

**Orme-Marmerelis, JP '803, Kudoh, and Tseng**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 1, as amended, in combination with the other features set forth in claim 1, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member disposed on a transfer unit and having the origin in the construction member, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, JP '803, Kudoh, and Tseng** in order to arrive at the features set forth in claim 1, as amended.

**Orme-Marmerelis, JP '803, Kudoh, and Tseng**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 11, as amended, in combination with the other features set forth in claim 11, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member or on the intermediate member disposed on a transfer unit and having the origin in the member provided, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, JP '803, Kudoh, and Tseng** in order to arrive at the features set forth in claim 11, as amended.

The Examiner has not yet established a *prima facie* case of obviousness. A patent applicant is entitled to a patent unless the U.S. Patent and Trademark Office establishes otherwise.

It is respectfully believed that essential elements of a *prima facie* case of obviousness are missing. The art does not describe, teach, or suggest the combinations of features as set forth in claims 1 and 11, as amended. Applicants respectfully submit that the Examiner has not established a *prima facie* case regarding claims 1 and 11, as amended.

Accordingly, in view of the above, Applicants respectfully submit that this rejection of claims 1 and 11 should be withdrawn.

C. Claims 7, 8, 17, and 18 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,520,402 (**Orme-Marmerelis**), U.S. Patent No. 5,746,844 (**Sterett**) or JP 10-226,803 (**JP '803**) in combination with U.S. Patent No. 4,656,048 (**Kudoh**) and U.S. Patent No. 6,309,711 (**Tseng**) and U.S. Patent No. 6,501,663 (**Pan**).

Applicants respectfully traverse this rejection, for the following reasons.

There are substantial, important differences between the art relied upon by the Examiner and the features set forth in the claims at issue.

**Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and Pan**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 1, as amended, in combination with the other features set forth in claim 1, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member disposed on a transfer unit and having the origin in the construction member, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving

in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and Pan** in order to arrive at the features set forth in claim 1, as amended.

**Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and Pan**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 11, as amended, in combination with the other features set forth in claim 11, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member or on the intermediate member disposed on a transfer unit and having the origin in the member provided, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and Pan** in order to arrive at the features set forth in claim 11, as amended.

The Examiner has not yet established a *prima facie* case of obviousness. A patent applicant is entitled to a patent unless the U.S. Patent and Trademark Office establishes otherwise.

It is respectfully believed that essential elements of a *prima facie* case of obviousness are missing. The art does not describe, teach, or suggest the combinations of features as set forth in claims 1 and 11, as amended. Applicants respectfully submit that the Examiner has not established a *prima facie* case regarding claims 1 and 11, as amended.

In view of the above, Applicants respectfully submit that this rejection of claims 7, 8, 17, and 18 should be withdrawn by virtue of their dependency.

D. Claims 51-56 stand rejected under 35 U.S.C. § 103(a) as obvious over U.S. Patent No. 6,520,402 (Orme-Marmerelis), U.S. Patent No. 5,746,844 (Sterett) or JP 10-226,803 (JP '803) in combination with U.S. Patent No. 4,656,048 (Kudoh) and U.S. Patent No. 6,309,711 (Tseng) and JP 11-040937 (JP '937).

Applicants respectfully traverse this rejection, for the following reasons.

There are substantial, important differences between the art relied upon by the Examiner and the features set forth in the claims at issue.

**Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and JP '937**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 1, as amended, in combination with the other features set forth in claim 1, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member disposed on a transfer unit and having the origin in the construction member, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and JP '937** in order to arrive at the features set forth in claim 1, as amended.

**Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and JP '937**, alone or in combination, fail to describe, teach, or suggest the following features set forth in claim 11, as amended, in combination with the other features set forth in claim 11, as amended:

the method comprising the step of converting the data of the coordinate system having the origin located at any position of the machine to a second set of data associated with a reference coordinate system provided in the construction member or on the intermediate member disposed on a transfer unit and having the origin in the member provided, ... wherein the molten metal is jetted from a nozzle and both the nozzle and the construction member have X, Y, Z axes perpendicular to each other, the nozzle being movable along each of the X, Y, Z axes, the nozzle moving in a circumferential direction around each of the X axis and the Y axis, and the construction member being movable along each of the X, Y, Z axes and also in a circumferential direction around each of the X, Y, Z axes.

Applicants submit that it would not have been obvious to combine/modify **Orme-Marmerelis, Sterett, JP '803, Kudoh, Tseng, and JP '937** in order to arrive at the features set forth in claim 11, as amended.

In view of the above, the Examiner has not yet established a *prima facie* case of obviousness. A patent applicant is entitled to a patent unless the U.S. Patent and Trademark Office establishes otherwise.

In view of the foregoing amendments and remarks, it is respectfully believed that essential elements of a *prima facie* case of obviousness are missing. The art does not describe, teach, or suggest the combinations of features as set forth in claims 1 and 11, as amended. Applicants respectfully submit that the Examiner has not established a *prima facie* case regarding claims 1 and 11, as amended.

In view of the above, Applicants respectfully submit that this rejection of claims 51-56 should be withdrawn by virtue of their dependency.

If, for any reason, it is felt that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney at the telephone number indicated below to arrange for an interview to expedite the disposition of this case.

In the event that this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. Please charge any fees for such an extension of time and any other fees which may be due with respect to this paper, to Deposit Account No. 01-2340.

Respectfully submitted,

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Enclosure: Petition for Extension of Time